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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,138	12/03/2003	George A. Provost	05918-346001	2304

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EXAMINER

AFTERGUT, JEFF H

ART UNIT PAPER NUMBER

1733

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,138	<b>Applicant(s)</b> PROVOST ET AL.	
	<b>Examiner</b> Jeff H. Aftergut	<b>Art Unit</b> 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.  
 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) See Continuation Sheet is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 1,2,4,6,9,10,15,16,22-25,29,32,33,35-43,45,46,49,54-58,60-63,65-67,77-82,87-93,97,99-101,110-115,117,122-126,128,130-144 and 209-220.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 23,24,35,40-43,45,56,57,61-63,65-67,70,77-79,125,126,128,130,133,135-137,139,140 and 210.

Continuation of Disposition of Claims: Claims rejected are 1,2, 4,6,9, 10,15,16,22,25,29,32,33,36-39,46,49,54,55,58,60,80-82,87-93,97,99-101,110-115, 117, 122-124, 131, 132, 134,138,141-144 and 209-220.

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 4, 6, 10, 15, 16, 22, 25, 29, 32, 33, 36-39, 46, 49, 54, 55, 58, 60, 80-82, 87-93, 97, 99-101, 134, 138, 141-144 and 214-220 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT WO 01/80680 in view of either one of Japanese patent 9-317 or Japanese Patent 7-171011 for the same reasons as expressed in paragraph 5 of the Office action dated 12-13-05 further taken with Takahashi (US 6,642,160, newly cited, of record, see IDS submitted 7-22-05).

The use of a needle punch density of greater than 200 times per square centimeter would have been obvious in PCT '680 as the reference suggested that one was able to freely chose the desired density and the references to either one of Japanese Patent '011 or '317 suggested that those skilled in the art of manufacturing a loop component for a hook and loop fastener (which is the component being manufactured by PCT '680) wherein one needled with a needle density of between 20-300 needles per square centimeter. The applicant is additionally advised that it was taken as obvious to utilize the conventional needle boards and needles of the conventional needling devices of the prior art in the operation. The reference to PCT '680 appears to employ barb needles in the operation rather than fork needles in the operation. However, one skilled in the art would have understood that conventional needling devices of the prior art included needle boards which incorporated either barb needles or fork needles to form a loop component of a hook and loop fastener as taught

Art Unit: 1733

by Takahashi. More specifically, the applicant is referred to column 1, lines 9-15 for a description of the loop material formed, column 8, lines 53-60 and column 9, lines 49-65 for the use of either barb or fork needles in the operation of needling the nonwoven layer in order to form the loop material of the loop component of the hook and loop fastener. Certainly, those skilled in the art of manufacturing a hook and loop fastener would have understood that it was known at the time the invention was made to employ a fork needle in the needling operation to form the loop component of the hook and loop fastener as evidenced by Takahashi. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the fork needles of Takahashi in the operation of needling to make the loop component of a hook and loop fastener as taught by PCT WO 01/80680 wherein the needle density included more than 200 needles per square centimeter as evidenced by either one of Japanese patent 9-317 or Japanese Patent 7-171011.

Applicant is referred to the Office action dated 12-13-05 for a complete discussion of the dependent claims.

3. Claims 2, 9, 58, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 5 further taken with German Patent 3006805 for the same reasons as expressed in paragraph 6 of the Office action dated 12-13-05.

4. Claims 110, 112-115, 117, 122-124, 131, 132 and 209-213 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT WO 01/80680 in view of German Patent 3006805 for the same reasons as expressed in paragraph 7 of the Office action dated

Art Unit: 1733

12-13-05 further taken with Takahashi (US 6,642,160, newly cited, of record, see IDS submitted 7-22-05).

The use of a carrier through which a nonwoven web was needled was well known in the art as evidenced by PCT '680 in the formation of a loop material for a hook and loop fastener. The reference did not suggest that the carrier material was in the form of a film, however the use of a film carrier in the formation of a loop component of a hook and loop fastener was well known in the art for the advantages of improved dimensional stability, check value action on the needled fibers, prevention of fiber from being drawn back when needles reverse in motion and considerable increase in pile density as suggested by German Patent '805. The applicant has amended the claims to recite that the needles are forked needles (as opposed to barbed needles which applicant states is what was employed by PCT '680).

The applicant is advised that it was taken as obvious to utilize the conventional needle boards and needles of the conventional needling devices of the prior art in the operation. One skilled in the art would have understood that conventional needling devices of the prior art included needle boards which incorporated either barb needles or fork needles to form a loop component of a hook and loop fastener as taught by Takahashi. More specifically, the applicant is referred to column 1, lines 9-15 for a description of the loop material formed, column 8, lines 53-60 and column 9, lines 49-65 for the use of either barb or fork needles in the operation of needling the nonwoven layer in order to form the loop material of the loop component of the hook and loop fastener. Certainly, those skilled in the art of manufacturing a hook and loop fastener

Art Unit: 1733

would have understood that it was known at the time the invention was made to employ a fork needle in the needling operation to form the loop component of the hook and loop fastener as evidenced by Takahashi. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the fork needles of Takahashi in the operation of needling to make the loop component of a hook and loop fastener as taught by PCT WO 01/80680 wherein one employed a carrier in the form of a film rather than a nonwoven as suggested by German Patent 3006805 as such had various known advantages in the art of making a loop component of a hook and loop fastener.

5. Claim 111 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with either one of Japanese patent 9-317 or Japanese Patent 7-171011 for the same reasons as expressed in paragraph 8 of Office action dated 12-13-05.

#### ***Election/Restrictions***

6. Claims 23, 24, 35, 40-43, 45, 56, 57, 61-63, 65-67, 70, 77-79, 125, 126, 128, 130, 133, 135-137, 139, 140, and 210 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10-31-05.

#### ***Response to Arguments***

7. Applicant's arguments filed 3-14-06 have been fully considered but they are not persuasive.

The applicant has amended the claims to recite that the needle employed in the operation of forming the loop component of the hook and loop fastener was a forked needle and argues that the only evidence previously supplied related to the use of barbed needles to form the loop component (and specifically addresses the reference to PCT '680. the applicant is advised that the use of the specific needle was taken as conventional in the art in the previous Office action at page 4:

Additionally, the applicant is advised that those skilled in the art would have provided a needle board and needles which were suitable for forming the looped material and such would have included the conventional needling devices as claimed."

The reference to Takahashi confirms that one skilled in the art would have understood that either barb or fork needles would have been suitable for the purpose of needling the nonwoven in the formation of a loop component for a hook and loop fastener. The applicant does not address whether it would have been obvious to needle with a density of 200 or more needles per square centimeter in PCT '680 as evidenced by Japanese Patent 9-317 or Japanese Patent 7-171011. Additionally applicant did not address whether one skilled in the art would have selected a carrier which included a film carrier as evidenced by German Patent '805. It is therefore believed that applicant agrees with the Office interpretation that it would have been obvious to needle more than 200 needles per square centimeter and additionally that it would have been obvious to employ a carrier which was a film for the reasons previously identified. The applicant only suggested that the use of forked needles was not known at the time the invention was made for forming a loop component of a hook and loop fastener and the merits of the same. The reference to Takashi clearly evidenced that those skilled in the art would



Art Unit: 1733

have employed a needle which included forked needles in the operation (as an alternative to a barb needle in the operation), and thus evidenced that which was previously taken as conventional and challenged by applicant as not conventional to the art. As to the various other dependent claims, applicant has not specifically addressed the same or the remarks in the previous Office action as to such being conventional and well known in the art. As such, applicant has acquiesced the same.

### ***Conclusion***


8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeff M. Aftergut  
Primary Examiner  
Art Unit 1733

JHA  
April 23, 2006